

REMARKS**Claim Amendments**

Claims 1, 10-12, 14, 17, 21, 25, 29, 32-34, 36-40, 48, and 53 are amended herein. Claims 13, 16 and 26-27 are cancelled.

Claim Rejections Under 35 U.S.C. § 101

Claims 48-52 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner stated each claim is software routine not embodied in a computer readable storage medium. Applicant respectfully traverses this rejection.

Applicant respectfully disagrees with the Examiner's characterization of claims 48-52 as being non-statutory subject matter under 35 U.S.C. § 101 for reciting a "machine-usable medium" and not a "computer-readable medium." Applicant respectfully notes that MPEP §2106(IV)(B)(1), 2nd Paragraph states "When functional descriptive material is recorded on *some* computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." {Emphasis added} Applicant further notes that machine-usable mediums are defined in the Specification of the Present Application as being "machine-usable storage mediums or firmware storage mediums that include, but are not limited to, a non-volatile Flash memory, a ROM, an EEPROM, a one time programmable (OTP) device, a complex programmable logic device (CPLD), an application specific integrated circuit (ASIC), a magnetic media disk, etc", at least, at Paragraph [0008]. (*See also*, Paragraphs [0006], [0008]-[0009], [0018] and [0034].) Applicant therefore respectfully maintains that "machine-usable medium," so defined, meets the requirements of MPEP §2106(IV)(B)(1) for some computer-readable medium and, as such, contends that claims 48-52 are statutory subject matter under 35 U.S.C. § 101. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 101 and allowance of claims 48-52.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-2, 5-17, 20-22, 24-29, 32-40, 43-48 and 50-53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. (U.S. Patent No. 6,279,069 B1) and further in view of Kasa et al. (U.S. Patent No. 6,275,412 B1) and Bill et al. (U.S. Patent No. 6,118,694) included as evidentiary evidence. Applicant respectfully traverses this rejection and submits that claims 1-2, 5-17, 20-22, 24-29, 32-40, 43-48 and 50-53, as amended, are allowable for at least the following reasons.

Applicant continues to respectfully maintain that Robinson et al. discloses a system that reads configuration parameters from a query mode ROM 31 of a Flash memory device and uses the configuration parameters to configure the low level driver to interface to the Flash memory device. Applicant respectfully maintains that Robinson et al. does not teach or suggest reading a device ID and/or manufacturer code to discover the memory type and configuring a device driver based on the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. Applicant therefore respectfully submits that Robinson et al. does not teach or suggest a method of operating a memory device driver comprising querying at least one memory device to discover the memory type, and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. Applicant thus respectfully submits that Robinson et al. does not teach or suggest all elements of Applicant's claimed invention.

In addition, Applicant continues to respectfully maintain that Kasa et al. discloses an alterable Common Flash Interface for a Flash memory which stores Flash memory interface configuration data in a special data area of the Flash memory and incorporates a 16 bit identification code to allow a user to identify the manufacturer and operating parameters of the

device. *See, e.g.*, Kasa et al., Figures 10A and 10B, Abstract; column 11, line 56 to column 12, line 65.

Applicant further respectfully maintains that Bill et al. discloses a distributed Common Flash Interface decoder for a Flash memory. *See, e.g.*, Bill et al., Figures 1-3, Abstract; column 2, line 21 to column 3, line 46.

Applicant therefore respectfully maintains that neither Kasa et al. or Bill et al. teach or suggest discovering the memory type and configuring a device driver based on the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters.

Applicant thus respectfully submits that combining Robinson et al. with Kasa et al. or Bill et al. does not teach or suggest Applicant's claimed invention, as maintained by the Examiner. Applicant therefore respectfully contends that Robinson et al. and Kasa et al. or Robinson et al. and Bill et al. do not teach or suggest all elements of Applicant's claims 1, 17, 29, 40 and 48, either alone or in combination.

Applicant's claim 1, as amended, recites, “[a] method of operating a memory device driver comprising: querying at least one memory device to discover the memory type by reading a memory ID code stored in the memory device; and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type; wherein the table the table is not stored on the at least one memory device and is modifiable to update the entries of memory types and parameters.” As detailed above, Applicant submits that combining Robinson et al. with Kasa et al. or Bill et al. fails to teach or suggest such a method of operating a memory device driver by querying a memory device to read a device ID and configuring the device driver to access the memory device according to the device ID by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of

memory types and parameters, either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 1.

Applicant's claim 17, as amended, recites, “[a] method of operating a system comprising: querying at least one Flash memory device coupled to a host to discover the memory type by reading a device ID and/or manufacturer code stored in the Flash memory device; and configuring a driver routine executing on the host to access the at least one Flash memory device according to the discovered memory type by loading parameters from an entry in a table that matches the discovered memory type; wherein the table is not stored on the at least one Flash memory device and is modifiable to update the entries of memory types and parameters.” As detailed above, Applicant submits combining Robinson et al. with Kasa et al. or Bill et al. fails to teach or suggest such a method of operating a system , either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 17.

Applicant's claim 29, as amended, recites, “[a] method of configuring a driver comprising: querying at least one Flash memory device to discover the memory type; and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table is not stored on the at least one Flash memory device and where the table is updateable.” As detailed above, Applicant submits combining Robinson et al. with Kasa et al. or Bill et al. fails to teach or suggest such a method of configuring a driver , either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 29.

Applicant's claim 40, as amended, recites, “[a] system comprising: at least one Flash memory device; and a host coupled to the at least one Flash memory device, wherein the host is adapted to query the at least one Flash memory device to read a device ID and/or manufacturer code stored in the Flash memory device and configure a driver routine to access the at least one Flash memory device in response to the query by matching the discovered device ID and/or manufacturer code to an entry in a table and loading parameters from the table entry that matches the device ID and/or manufacturer code; wherein the table is not stored on the at least one Flash

memory device and is modifiable to update the entries.” As detailed above, Applicant submits combining Robinson et al. with Kasa et al. or Bill et al. fails to teach or suggest such a system that queries a Flash memory device to read a device ID and/or manufacturer code stored in the Flash memory device and configures a driver routine to access the at least one Flash memory device in response to the query by matching the discovered device ID and/or manufacturer code to an entry in a table, wherein the table is not stored on the at least one Flash memory device and is modifiable to update the entries , either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 40.

Applicant’s claim 48, as amended, recites, “[a] machine-readable medium, the machine-readable medium containing a software routine for causing a processor to execute a method, wherein the method comprises: querying at least one Flash memory device to read a device ID and/or manufacturer code stored in the Flash memory device to discover the memory type; and configuring a driver to access the at least one Flash memory device according to the discovered memory type by matching the discovered device ID and/or manufacturer code to an entry in a table and loading parameters from the table entry that matches the device ID and/or manufacturer code; wherein the table is not stored on the at least one Flash memory device and is modifiable to update the entries.” As detailed above, Applicant submits combining Robinson et al. with Kasa et al. or Bill et al. fails to teach or suggest such a machine-readable medium and process , either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 48.

Applicant’s claim 53, as amended, recites, in part, “[a] system comprising: at least one Flash memory device; and a host coupled to the at least one Flash memory device, wherein the host comprises a means for detecting a Flash memory type of the at least one Flash memory device by reading a memory ID code stored in the Flash memory device and comprises a means for configuring a driver to access the at least one Flash memory device in response to the Flash memory type detected by the means for detecting by matching the memory ID code to an entry in an data storage means and loading parameters from the entry; wherein the data storage means is not stored on the at least one Flash memory device and is modifiable to update the entries.” As detailed above, Applicant submits combining Robinson et al. with Kasa et al. or Bill et al.

fails to teach or suggest such a system , either alone or in combination. As such, Robinson et al. and Kasa et al. or Bill et al. fail to teach or suggest all elements of independent claim 53.

Applicant respectfully contends that claims 1, 17, 29, 40, 48, and 53 as pending have been shown to be patentably distinct from the cited reference of Robinson et al., Kasa et al. and Bill et al., either alone or in combination. As claims 2, 5-16, 20-22, 24-29, 32-39, 43-47, and 50-52 depend from and further define claims 1, 17, 29, 40, and 48, respectively, they are also believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 1-2, 5-17, 20-22, 24-29, 32-40, 43-48 and 50-53.

Claims 4, 23 and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. and Kasa et al. as applied to claims 1-2 above and further in view of Langford et al (U.S. Patent No. 6,907,496). Applicant respectfully traverses this rejection and feels that claims 4, 23 and 34 are allowable for the following reasons.

Applicant respectfully maintains, as stated above, that Robinson et al. discloses a system that reads configuration parameters from a query mode ROM 31 of a Flash memory device and uses the configuration parameters to configure the low level driver to interface to the Flash memory device. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. As also stated above, Applicant continues to respectfully maintain that Kasa et al. discloses an alterable Common Flash Interface for a Flash memory which stores Flash memory interface configuration data in a special data area of the Flash memory and incorporates a 16 bit identification code to allow a user to identify the manufacturer and operating parameters of the device. *See, e.g.*, Kasa et al., Figures 10A and 10B, Abstract; column 11, line 56 to column 12, line 65. Applicant respectfully maintains that Robinson et al. and Kasa et al. do not teach or suggest discovering the memory type and configuring a device driver based on the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters, either alone or in combination.

In addition, Applicant respectfully continues to maintain that Langford et al. discloses a method of updating the data on a flash memory that determines the configuration and size of a Flash memory for use in updating the flash memory by reading addresses of the Flash memory system. *See, e.g.*, Langford et al., Figure 4, Abstract; column 2, lines 6-11; column 3, line 41 to column 5, line 17.

Applicant thus respectfully submits that combining Robinson et al. and Kasa et al. with Langford et al. does not teach or suggest Applicant's claimed invention, as maintained by the Examiner. Applicant therefore respectfully contends that Robinson et al., Kasa et al. and Langford et al. do not teach or suggest all elements of Applicant's claims 1, 17, and 29, either alone or in combination.

Applicant respectfully contends that claims 1, 17, and 29 as pending have been shown to be patentably distinct from the cited references Robinson et al. and Langford et al., either alone or in combination. As claims 4, 23 and 34 depend from and further define claims 1, 17, and 29, respectively, they are also believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 4, 23 and 34.

Claims 3, 18, 30 and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. and further in view of Wong et al (U.S. Patent No. 6,970,969). Claims 19, 31, 42 and 49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. and further in view of Parulski et al (U.S. Patent No. 6,650,366) and Battaglia et al. (U.S. Patent No. 6,987,927). Applicant respectfully traverses this rejection and feels that claims 3, 18-19, 30-31, 41-42 and 49 are allowable for the following reasons.

Applicant respectfully maintains, as stated above, that Robinson et al. discloses a system that reads configuration parameters from a query mode ROM 31 of a Flash memory device and uses the configuration parameters to configure the low level driver to interface to the Flash memory device. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. Applicant respectfully maintains that Robinson et al. does not teach or suggest discovering the memory type and configuring a device driver based on the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from

the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. Applicant therefore respectfully submits that Robinson et al. does not teach or suggest a method of operating a memory device driver comprising querying at least one memory device to discover the memory type, and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. Applicant thus respectfully submits that Robinson et al. does not teach or suggest all elements of Applicant's claimed invention.

In addition, Applicant respectfully maintains that Wong et al. discloses a multiple segment data structure and method to manage data in NAND and NOR architecture Flash memory device. *See, e.g.*, Wong et al., Abstract; column 8, lines 6-11.

Applicant also respectfully maintains that Parulski et al. discloses a digital still imaging system incorporates a PCMCIA-ATA interface. *See, e.g.*, Parulski et al., Abstract; column 4, lines 30-35.

Applicant further respectfully maintains that Battaglia et al. discloses a portable battery powered device for transferring data from a flash device to a large capacity digital storage device that incorporates a USB, MemoryStick, and Multimedia card interfaces. *See, e.g.*, Battaglia et al., Abstract; column 16, lines 4-11; column 15, lines 2-6.

Applicant thus respectfully submits that combining Robinson et al. with Wong et al., Parulski et al, or Battaglia et al. does not teach or suggest Applicant's claimed invention, as maintained by the Examiner. Applicant therefore respectfully contends that Robinson et al. and Wong et al., Parulski et al, or Battaglia et al. do not teach or suggest all elements of Applicant's claims 1, 17, 29, 40 and 48, either alone or in combination.

Applicant respectfully contends that claims 1, 17, 29, 40 and 48, as pending have been shown to be patentably distinct from the cited references Robinson et al., Wong et al., Parulski et al, or Battaglia et al., either alone or in combination. As claims 3, 18-19, 30-31, 41-42 and 49 depend from and further define claims 1, 17, 29, 40 and 48, respectively, they are also believed

to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 3, 18-19, 30-31, 41-42 and 49.

Claims 1-2, 4, 6-7, 17, 20, 21, 23, 29, 32, 34, 40, 44, 47, 48 and 50-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. and further in view of Larsen et al (U.S. Patent No. 6,223,290 B1). Applicant respectfully traverses this rejection and feels that claims 1-2, 4, 6-7, 17, 20, 21, 23, 29, 32, 34, 40, 44, 47, 48 and 50-51 are allowable for the following reasons.

Applicant respectfully maintains, as stated above, that Robinson et al. discloses a system that reads configuration parameters from a query mode ROM 31 of a Flash memory device and uses the configuration parameters to configure the low level driver to interface to the Flash memory device. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. Applicant respectfully maintains that Robinson et al. does not teach or suggest discovering the memory type and configuring a device driver based on the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. *See, e.g.*, Robinson et al., Abstract; column 5, lines 23-33; and column 4, lines 16-67. Applicant therefore respectfully submits that Robinson et al. does not teach or suggest a method of operating a memory device driver comprising querying at least one memory device to discover the memory type, and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. Applicant thus respectfully submits that Robinson et al. does not teach or suggest all elements of Applicant's claimed invention.

In addition, Applicant respectfully maintains that Larsen et al. discloses a method for controlling use of an electronic system having a lockable auxiliary memory, such as a protection register or one-time-programmable (OTP) memory, outside of the main memory that contains a unique code that is compared in a relationship to at least one component code to determine if the

system is allowed to be used. *See, e.g.*, Larsen et al., Abstract; column 5, line 3 to column 6, line 9. Applicant therefore respectfully submits that Larsen et al. also does not teach or suggest a method of operating a memory device driver comprising querying at least one memory device to discover the memory type, and configuring the driver to access the at least one memory device according to the discovered memory type by matching the discovered memory type to an entry in a table and loading parameters from the table entry that matches the discovered memory type, wherein the table the table is not stored on the memory device and is modifiable to update the entries of memory types and parameters. Applicant therefore respectfully contends that combining Robinson et al. and Larsen et al. does not teach or suggest all elements of Applicant's claims 1, 17, 29, 40 and 48, either alone or in combination.

Applicant respectfully contends that claims 1, 17, 29, 40 and 48, as pending have been shown to be patentably distinct from the cited references Robinson et al. and Larsen et al., either alone or in combination. As claims 2, 4, 6-7, 20-21, 23, 32, 34, 44, 47 and 50-51 depend from and further define claims 1, 17, 29, 40 and 48, respectively, they are also believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 1-2, 4, 6-7, 17, 20, 21, 23, 29, 32, 34, 40, 44, 47, 48 and 50-51.

CONCLUSION

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Please charge any further fees deemed necessary or credit any overpayment to Deposit Account No. 501373.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2207.

Respectfully submitted,

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